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APPLICATION NO). FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/569,792	08/03/2006	Einar Mantyla	3535-0143PUS1	6466
2292 DID CH ST	7590 · 12/14/200 EWART KOLASCH & BI	EXAMINER		
PO BOX 7	47	SAIDHA, TEKCHAND		
FALLS CF	HURCH, VA 22040-0747		ART UNIT	PAPER NUMBER
			1652	
			NOTIFICATION DATE	DELIVERY MODE
			12/14/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

		Applicati	on No.	Applicant(s)				
Office Action Commence		10/569,7	92	MANTYLA ET AL.				
Office Action Summary			r	Art Unit				
		Tekchano		1652				
Period fo	The MAILING DATE of this communication or Reply	n appears on th	e cover sheet with the c	orrespondence ad	ldress			
WHIC - Exte after - If NC - Failu Any	ORTENED STATUTORY PERIOD FOR R CHEVER IS LONGER, FROM THE MAILIN nsions of time may be available under the provisions of 37 CI SIX (6) MONTHS from the mailing date of this communication of period for reply is specified above, the maximum statutory per re to reply within the set or extended period for reply will, by a reply received by the Office later than three months after the ed patent term adjustment. See 37 CFR 1.704(b).	IG DATE OF T FR 1.136(a). In no even on. period will apply and v statute, cause the app	HIS COMMUNICATION rent, however, may a reply be timeral expire SIX (6) MONTHS from solication to become ABANDONE	N. nely filed the mailing date of this or D (35 U.S.C. § 133).				
Status								
1)[\]	Responsive to communication(s) filed on	11 June 2007						
2a)□	This action is FINAL . 2b)⊠ This action is non-final.							
3)	,—							
٧,۵	closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.							
Disposit	on of Claims	. •	•					
4)⊠	Claim(s) <u>1-21</u> is/are pending in the application.							
	4a) Of the above claim(s) is/are withdrawn from consideration.							
5)	Claim(s) is/are allowed.							
6)⊠	Claim(s) <u>1-6,15,16 and 21</u> is/are rejected.							
7)🖾	Claim(s) 7-14 and 17-20 is/are objected to.							
8)[Claim(s) are subject to restriction and/or election requirement.							
Applicati	on Papers							
9) The specification is objected to by the Examiner.								
10)⊠	10)⊠ The drawing(s) filed on <u>27 February 2006</u> is/are: a)□ accepted or b)⊠ objected to by the Examiner.							
	Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).							
	Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).							
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.								
Priority ι	ınder 35 U.S.C. § 119		1					
12)⊠ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a)⊠ All b)□ Some * c)□ None of:								
	1. Certified copies of the priority documents have been received.							
	2. Certified copies of the priority documents have been received in Application No							
	3. Copies of the certified copies of the priority documents have been received in this National Stage							
* 0	application from the International Bu	•	` ''	يا.				
, " &	See the attached detailed Office action for a	a list of the cert	tied copies not receive	a.				
Attachmen								
	e of References Cited (PTO-892)	n.	4) Interview Summary					
	e of Draftsperson's Patent Drawing Review (PTO-948 nation Disclosure Statement(s) (PTO/SB/08)	5)	Paper No(s)/Mail Da 5) Notice of Informal Pa					
	Paper No(s)/Mail Date 6/11/2007 & 2/27/2006. 6) Other:							

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DETAILED ACTION

- 1. Claims 1-21 are present in this application
- 2. Claims 7-14 & 17-20 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend on another multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims 7-14 & 17-20 not been further treated on the merits.

Any dependent claim which refers to more than one other claim ("multiple dependent claim") shall refer to such claims in the alternative only. Multiple dependent claims shall not serve as a basis for any other multiple dependent claim.

3. Claims 1-6 & 15-16 are under consideration in this Office Action.

4 Priority

Acknowledgment is made of applicants' claim for priority based on an application filed in Iceland on 8.27.2003.

Applicant's claim for domestic priority under 35 U.S.C. 119(e), filed 8.27.2003, is acknowledged.

5. **Drawing**;

Drawing filed 2/27/2006 is acknowledged. Figures 2 and 4 and not clear and it is hard to see the SDS-Page profile of the protein purification. Clarification is requested.

6. Specification

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

7. Claim Objections

Claim 16 is objected to because of the following informalities: Claim 16 depends upon claim 16. A claim cannot depend on the same claim. Appropriate correction is required. The claim is not rejection for lack of antecedent basis, since it appears to be typographical error.

8. **Claim Rejections - 35 USC § 112** (second paragraph)

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Claims 1-6, 15 & 21 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, last line, recites the phrase 'substantially purified'. The claim is vague and indefinite because it is unclear about the extent of purification or does not define the metes and bounds of the claim.

Claims 2-6, 15 & 21 are included in the rejection for failing to correct the defect present in the base claim(s).

9. Claim 4, line 3, refer to different protein purification steps, and ending with the phrase 'or any combination thereof'.

The claim is indefinite because purification steps follow a sequential order; and the ending phrase 'or any combination thereof is confusing because it disrupts the order of steps. Deletion of the phrase is suggested.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 15-16 & 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Shani et. al. (USP 6,331,416 B1; December 21, 2001).

Claims 1-6, 15-16 & 21 are broadly drawn to a method for production and purification of a soluble heterologous fusion protein comprising a cellulose binding module (CBM), from transgenic plants or transgenic plant cells expressing said fusion protein, comprising — disrupting transgenic plant material, extraction, separation soluble and insoluble plant material, binding the fusion protein to polysaccharide matrix, washing and eluting the bound material by adjusting the conditions.

Shani et al. in Figure 1 describe in detail all the essential steps of protein purification (protein of interest and a cellulose binding peptide being fused; wherein the cellulase binding peptide is no different than cellulose binding domain) comprising

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homogenization (or disruption) of transgenic plant material, inherent step of separating the solids and binding soluble (containing fusion protein) to a cellulose binding or affinity column, washing and release of the fusion protein by varying the elution buffers to yield the fusion protein or recombinant protein as required. Various column chromatography methods and matrices are described depending upon the requirements (*See* abstract, claims and the entire specification; binding domains in Table 3 & 4; construction of transgenic plants, among others).

The reference anticipates for teaching all the claim limitations.

- 11. No claim is allowed.
- 12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tekchand Saidha whose telephone number is (571) 272 0940. The examiner can normally be reached on 8.30 am 5.00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapu Achutamurthy can be reached on (571) 272 0928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tekchand Saidha

Primary Examiner, Art Unit 1652

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December 7, 2007